

# Level and Risk Factors of Parental Stress in Parents of Children with Intellectual Disabilities: A Systematic Review

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**Abstract.** Parenting children with intellectual disabilities poses unique challenges that may increase parental stress due to difficulties in adjusting expectations, limited access to support services, social stigma, and economic pressures. This study conducted a systematic review using the PRISMA approach to examine levels of parental stress and contributing factors based on literature published between 2019 and 2025, with eight articles meeting the inclusion criteria. The findings indicate that children's emotional and behavioral characteristics, such as aggression and delayed information processing, significantly affect parents' psychological well-being. In addition, environmental factors, including social support, marital stability, and contextual stressors such as the COVID-19 pandemic, were found to influence parental stress. These findings highlight the importance of family-based interventions to reduce parental stress and promote family well-being.

**Keywords:** parental stress, children with intellectual disability, family stress, caregiving

## 1 Introduction

Parenting is a process of interaction between parents and children aimed at guiding, educating, and fulfilling the needs of children to support their optimal development [1]. Parenting children with disabilities is a complex and dynamic process, as parents experience varying levels of stress over time that are influenced by family dynamics and the demands associated with the child's condition [2]. One of the challenges in parenting children with intellectual developmental disorder is the emergence of parenting patterns characterized by overprotection, rejection, and strict control, which may increase the risk of emotional and mental health problems in children [3]. Emotional regulation abilities generally develop with age. Upon entering the parental role, the capacity to manage and regulate emotions, both individually and socially within interpersonal relationships, becomes a crucial aspect of effective parenting [4].

Parents, both fathers and mothers, face dual-role challenges in balancing professional responsibilities and childcare. This complexity necessitates additional support in various aspects, such as education and daily activities of the child [5]. Increased emotional pressure can contribute to parental conflicts, which often negatively impact parenting practices, including reduced emotional warmth, lower engagement in child activities, and the implementation of harsh or inconsistent discipline. These conditions can directly affect child development, including internalizing and externalizing behavioral problems, particularly when parents face additional challenges in caring for children with intellectual disabilities [6] [7] [8].

Intellectual disability is a condition characterized by reduced cognitive functioning that complicates daily activities and learning. This impairment affects cognitive functions, particularly those associated with the frontal lobes, such as information processing speed. Children with intellectual disabilities often experience delays in processing information, impacting various mental functions. Processing speed involves attention, comprehension, and response to stimuli, all of which are crucial for human behavior. Delays in these processes can disrupt overall brain performance [9].

In Indonesia, UNICEF [10] highlights that intellectual disability in children is influenced by health factors such as malnutrition and stunting, as well as broader social determinants. Children with intellectual disabilities often exhibit delayed comprehension and responses to stimuli, affecting attention, behavior, and daily adaptive functioning. Research further underscore that parental psychological distress and parenting patterns play a central role in determining parental involvement when caring for children with such conditions [11].

*The Disability Stress Coping Model* [12] explains that families face chronic stressors, including the severity of the disability and functional limitations of the child. These factors elevate the risk of psychosocial difficulties among parents [13]. The impact extends beyond parents to other family members, such as siblings, who may also experience emotional strain [14].

Families raising children with intellectual disabilities often encounter physical, psychological, social, and emotional challenges that affect the entire family system. These families may experience marginalization, limited access to resources, and reduced social support, which negatively influence parental life satisfaction and emotional well-being [15] [16]. Parents who lack adequate social support and coping resources tend to report lower satisfaction and increased emotional exhaustion.

Stigma associated with children with intellectual disabilities may also affect parental relationships with extended family and the wider community, thereby limiting available support. Factors such as difficulty accessing services, lack of marital support, social rejection from friends and relatives, limited social interaction opportunities, and financial pressures can contribute to suboptimal relationship quality [17]. Cognitive responses to stigma in individuals with intellectual limitations often involve perceptions of lower value and ability compared to their peers. Parents may inadvertently reinforce social stigma toward individuals with intellectual disabilities, which can negatively impact the child. Behaviorally, stigma can elicit withdrawal and social isolation. In some cases, families attempt to conceal a member's condition to avoid social rejection or exclusion [18].

Parenting stress intensifies when parents confront overlapping pressures such as economic hardship, limited service availability, and environmental challenges. Living in low-income

communities increases exposure to financial strain and inadequate access to basic resources, escalating the risk of parenting stress [19]. Many parents report intense emotional reactions such as shock and despair upon receiving their child's diagnosis [20]. At the same time, parents remain central in providing safety and emotional support for their children [21].

Within the bidirectional influence framework, child behaviors shape parental responses and vice versa. Among children with intellectual disabilities, challenging behaviors may heighten parenting stress and alter parenting strategies, which subsequently affect children's well-being. Severity of disability, aggressive behaviors, and cognitive delays often increase the caregiving burden [22] [23] [24].

The birth of a child with Severe Intellectual Disability (SID) requires families to reconstruct expectations, adjust family identity, and reorganize routines. Limited access to education, economic strain, and insufficient health services may reduce the quality of parent-child interactions and overall family well-being [25].

Although studies on parental stress among parents of children with intellectual disabilities have expanded globally, systematic research specifically examining this phenomenon within Southeast Asia including Indonesia remains scarce. The limited scientific synthesis in this regional context highlights a significant research gap, especially given that parenting norms, family structures, and service accessibility in Southeast Asia may generate distinct patterns of parenting stress compared to Western contexts.

Based on this background, the present systematic review aims to identify the risk levels of parental stress among parents of children with intellectual disabilities and categorize the factors contributing to increased parenting stress within this context.

## **2 Research Method**

This study employed a systematic review methodology to comprehensively identify and synthesize relevant studies using structured, transparent, and replicable procedures [26]. Methodological rigor was ensured through systematic steps aimed at minimizing potential bias arising from the original studies as well as from publication and dissemination processes.

### **2.1 Research Questions**

This study addresses the following research questions:

1. What is the level of parental stress among parents of children with intellectual disabilities?
2. What factors contribute to increased parental stress among parents of children with intellectual disabilities?

#### **2.1.1 Inclusion Criteria**

The inclusion criteria for this study were as follows:

1. Articles published between 2019 and 2025;

2. Articles focusing on parental stress among parents of children with intellectual disabilities, including the psychological dynamics associated with this condition;
3. Articles written in English; and
4. Articles that are open-access and publicly available in full text.

### 2.1.2 Article Quality Assessment

The selection and assessment of articles followed the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) guidelines. At the initial stage, the researcher determined the main topic as the central theme for article retrieval. Subsequently, a screening process was conducted based on the defined inclusion criteria. The researcher then selected relevant studies through title and abstract screening across several databases. Articles that met the criteria were further subjected to a comprehensive review and synthesis to ensure relevance and methodological rigor. After the screening and eligibility process, five studies met the inclusion criteria and were selected for in-depth synthesis. Although the number of included studies was limited, this reflects the scarcity of empirical research focusing specifically on parental stress among parents of children with intellectual disabilities. Therefore, this review prioritized the depth and relevance of findings rather than the quantity of sources

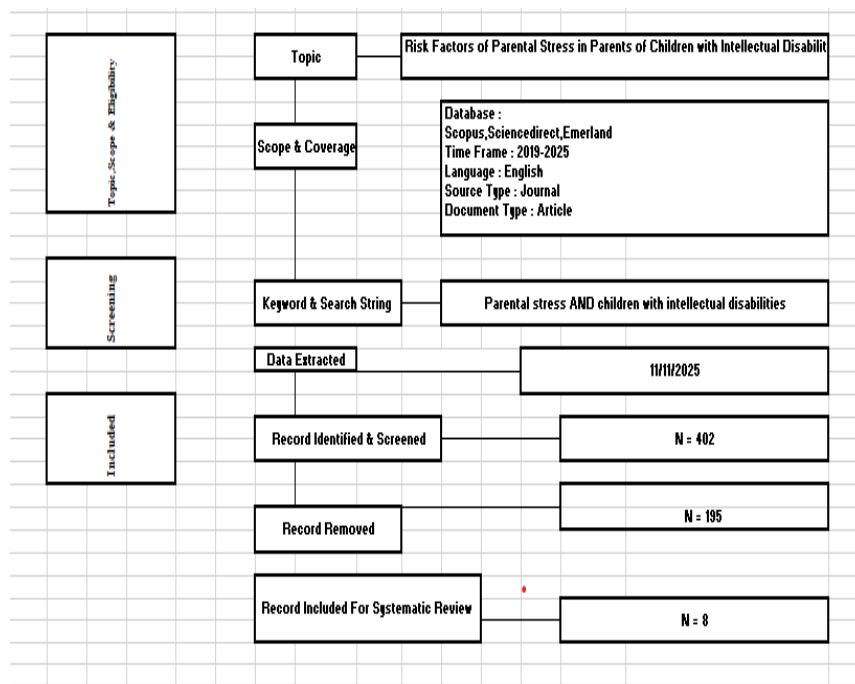


Fig. 1. illustrates the article selection process following the PRISMA-ScR framework.

### 3 Findings and discussion

No	Author	Title	Sample and Data Analysis	Findings
1.	Jung et al. (2023).	Children's and Parents' Factors That Affect Parenting Stress in Preschool Children With Developmental Disabilities or Typical Development.	<p>196 families with children diagnosed with developmental disabilities, including those with intellectual disabilities.</p> <p><b>Country</b></p> <p>South Korea.</p> <p><b>Data Analysis</b></p> <p><i>Pearson's correlation coefficient (<math>r</math>) and hierarchical multiple linear regression.</i></p>	<p>This study revealed that caregivers of children with developmental disorders (DD) experienced higher levels of parenting stress compared to caregivers of typically developing (TD) children. Such stress was associated with children's cognitive factors, adaptive functioning, social communication, and behavioral challenges. Increased parenting stress elevated the risk of depression and anxiety, thereby reducing caregivers' quality of life and worsening their mental health. Attention problems, aggression, and social difficulties were key contributors to parental stress, potentially leading to emotional exhaustion.</p>
2.	Cappellen et al. (2023).	Social information processing, normative beliefs about aggression and parenting in children with mild intellectual disabilities and aggressive behavior.	<p>152 families with children with mild intellectual disabilities.</p> <p><b>Country</b></p> <p>The Netherlands.</p> <p><b>Data Analysis</b></p> <p><i>Structural equation modeling (SEM).</i></p>	<p>The study demonstrated that children's normative beliefs about aggression and parental rearing patterns influence aggressive behavior through distortions in social information processing. Children with mild intellectual disabilities who perceived aggression as acceptable were more likely to misinterpret social cues, leading to increased aggression. Positive parenting practices shaped children's beliefs about aggression and affected how they processed social information. Moreover, parents of children with developmental disabilities experienced heightened parenting stress due to greater financial, physical, and emotional</p>

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demands, contributing to increased stress, depression, and family disruption.

3. Levy & Poria (2020).  
A mediation model of parental stress, parenting, and risk factors in families having children with mild intellectual disability.  
156 families with children with mild intellectual disabilities.  
**Country**  
Israel.  
**Data Analysis**  
*Structural equation modeling (SEM)*  
This study found that child and environmental risk factors influenced maternal parenting behavior through the mediation of parenting stress in both groups—families with children with mild intellectual disabilities (MID) and those with typically developing (TD) children. However, for fathers, parenting stress served as a mediator only in families with TD children, whereas in families with MID children, environmental risk factors directly affected parenting behavior without the mediating role of stress.
4. Marcone & Borghese (2023).  
Parental stress and support perception in southern Italy's households with intellectual disabilities and/or autistic spectrum disorder before and during the COVID-19 pandemic.  
106 families with children diagnosed with intellectual disabilities and/or autism spectrum disorder.  
**Country**  
Italy.  
**Data Analysis**  
ANOVA  
This research examined levels of parenting stress and perceived social support among families in Southern Italy before and during the COVID-19 pandemic. Results showed that the pandemic had a negative impact on parents' psychological well-being, with significant increases in stress and anxiety levels during the lockdown compared to the pre-pandemic period. Additionally, perceived social support declined, further exacerbating parenting stress.
5. Biggs et al. (2024).  
Stress and Resilience of Families With Children with Intellectual and Developmental Disabilities During the COVID-19 Pandemic: A Mixed-Methods Study.  
37 families with children with intellectual and developmental disabilities.  
**Country**  
This study explored the experiences of parents raising children with intellectual disabilities and complex communication needs during the COVID-19 pandemic. The findings indicated heightened parental stress due to the loss of support services and difficulties accessing online learning. Nonetheless, some families demonstrated resilience by developing adaptive coping strategies to manage these

			United States.	challenges.
			<b>Data Analysis</b>	
			<i>Mixed-methods</i>	
6.	Williams et al. (2025)	Longitudinal evaluation of the Family Stress Model in families of children with intellectual disabilities	372 Primary caregivers of children with intellectual disabilities completed an online survey at three time points	The study demonstrates that family economic adversity consistently increases parental psychological distress, which in turn affects the quality of the parent-child relationship and ultimately shapes child behavioral outcomes. Higher parental distress reduces parent-child closeness and increases parent-child conflict; lower closeness is associated with greater externalizing behaviors and reduced prosocial behaviors in children, whereas higher conflict predicts increases in both externalizing and internalizing behavior problems. In terms of parenting practices, parental distress contributes to inconsistent discipline, which subsequently elevates children's externalizing behaviors, while positive parenting is more strongly linked to children's internalizing and prosocial behaviors rather than externalizing behaviors. After model refinement, the overall pattern remains: parental psychological distress serves as a central mechanism connecting economic adversity to variations in parent-child relationship quality and the emergence of child behavior problems.
			<b>Country</b>	
			England.	
			<b>Data Analysis</b>	
			<i>Structural equation modeling (SEM)</i>	
7.	Arango et al. (2025)	Parental attitudes and practices in families with siblings with and without intellectual disability: Influences of sociodemographic and child-related factors	95 parents (61 mothers and 34 fathers) who completed the questionnaires regarding their child with intellectual disability.	Parents showed more positive attitudes and more authoritative, less permissive parenting toward the typically developing child than toward the child with intellectual disability. Parents of children with Down syndrome reported more positive attitudes and less permissiveness than parents of children with other etiologies, and those whose children attended regular schools were also less permissive. Lower-SES parents promoted less autonomy than middle- and high-SES parents. Mothers reported more positive
			<b>Country</b>	

Chile

attitudes than fathers across several dimensions.

### Data Analysis

*ANOVA*

8. Schel et al. (2021)

Prevalence of and relationship between adverse childhood experiences and family context risk factors among children with intellectual disabilities and borderline intellectual functioning.

169 case files of children discharged in the period 2016–2019 from a national centre for residential youth care in the Netherlands for specialized clinical observation, diagnostics and treatment for both children with ID and BIF.

In short, the study found that children with intellectual disabilities and borderline intellectual functioning often experience adverse childhood experiences (ACEs) and high family context risk factors. These factors are interrelated, as a stressful or unsupportive family environment can increase the likelihood of children undergoing harmful childhood experiences, which in turn affect their emotional, behavioral, and adaptive development.

### Country

Netherlands

### Data Analysis

*Chi-square tests, the non-parametric Mann-Whitney U test and the Kruskal-Wallis test.*

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Based on findings from reviewed studies, parental stress in parents of children with intellectual disabilities arises from a complex interaction between internal and external factors. Internal factors include child characteristics such as challenging behaviors, cognitive delays, aggression, and complex caregiving needs, which can create emotional strain for parents and affect their ability to implement effective parenting strategies. External factors involve environmental and social pressures, such as family and community support, economic conditions, access to services, and situational circumstances including the COVID-19 pandemic which can exacerbate stress levels and the psychological well-being of the family [27].

Meta-synthesis of existing studies shows that the interaction between internal and external factors is reciprocal. Children's challenging behaviors may increase parental stress, which in turn influences parenting patterns and the quality of parent-child interactions. Environmental and social pressures can further amplify this stress, so families facing a combination of internal and external risks tend to experience higher levels of parental stress. These findings highlight that managing parental stress requires a holistic approach that considers both the individual characteristics of the child and parents, as well as the social and environmental context in which the family lives.

Overall, the reviewed evidence confirms that child behavior and environmental pressures are key determinants of parental stress, directly affecting family psychosocial well-being. An integrative understanding of the interaction between internal and external factors is essential for designing effective interventions and support for families with children with intellectual disabilities.

### **3.1 Discussion**

#### **3.1.1 Definition of Parental Stress**

The transition to parenthood is a complex experience that encompasses enjoyable and rewarding aspects, while also involving significant sources of stress. The presence of a child who is fully dependent on parents for survival and well-being creates dynamic demands that may trigger stress. In addition, responsibilities related to childrearing, maintaining family balance, and contributing to the wider community can further increase the psychological burden for some parents [28].

The stress experienced by parents can strongly impact child behavior and development, referred to as "parental effects." Conversely, there are also "child effects" that can influence parents and contribute to parenting stress. The relationship between parental stress and child development is bidirectional, with parents influencing children and vice versa. This relationship evolves over time, is not always systematic, and can be difficult to observe. Children and parents respond to each other's difficulties in diverse ways, both adaptively and maladaptively. Thus, parental stress is defined as the unpleasant feelings experienced by most parents in connection with the demands of the parenting role. This stress reflects individual differences in coping with pressures arising from caregiving responsibilities and has been shown to be a critical aspect of parental, child, and overall family functioning.

#### **3.1.2 Family Structural Model and Adaptation in Families with Children with Intellectual Disabilities**

The family structural model conceptualizes families as biological and mechanical systems with a structural foundation that contributes to overall system functioning. Family structure shapes interaction patterns, as each member holds a unique and essential role. Basic family structure does not directly cause problems but influences adaptive capacity through rules, routines, and internal negotiations that promote harmony and stability [29].

In the context of families with children with intellectual disabilities (ID), family structure tends to shift from hierarchical to more cooperative. Family members adjust their roles and responsibilities to meet the child's needs, including caregiving, emotional support, and daily care. This adaptation occurs through stressor appraisal, use of coping strategies, and utilization of available resources. Family vulnerability and limited resources can complicate the adaptation process, impacting both parental and child well-being [30].

The Family Stress Model (FSM) to families with children with ID and demonstrated that economic adversity influences child externalizing behaviors through parental psychological stress and the quality of parent-child relationships. Conflict within these relationships has a greater effect on child behavior than inconsistent discipline. However, families that can adjust their structure and interaction patterns such as through more cooperative role distribution, effective communication, and adaptive coping strategies—can mitigate parenting stress and support children's prosocial behavior [31].

Overall, the FSM emphasizes that parental stress arises from the interaction of internal family factors (e.g., parental stress, parent-child relationship quality) and external factors (e.g., economic adversity, limited resources). FSM also accounts for risk and protective factors that may moderate the stress process within the family [32]. From a life-course perspective, identifying processes that trigger negative outcomes in early life is crucial to prevent limited opportunities for adaptive outcomes, as early-life experiences significantly influence long-term child development [33].

Therefore, family structural adaptation, role adjustments, and stress management are key to reducing parental stress and supporting the emotional and social development of children with intellectual disabilities. FSM provides a relevant theoretical framework for understanding these dynamics and designing interventions that enhance family relationships and child well-being.

### **3.1.3 Risk and Protective Factors and Family Adaptation Strategies**

Based on the synthesis of selected studies, parenting stress among parents of children with intellectual disabilities stems from the interaction between child-related risk factors and protective factors originating from the family and social environment. Rather than functioning independently, these elements mutually influence one another in shaping parents' psychological well-being and their caregiving experiences. Parents of children with disabilities consistently report higher stress levels, which are closely linked to their children's cognitive abilities, adaptive functioning, social communication skills, and behavioral challenges. Such stress, if unmanaged, can increase susceptibility to depression and anxiety while diminishing the overall quality of life and mental health of parents [34].

Furthermore, environmental stressors such as financial difficulties, limited access to support services, and social isolation further exacerbate the burden experienced by parents. The COVID-19 pandemic serves as a clear example of how external crises can intensify these pressures, as families faced disruptions in educational and therapeutic services alongside increased caregiving responsibilities. These conditions can affect the quality of parent-child relationships, where low levels of closeness are associated with increased externalizing behaviors and decreased prosocial behaviors in children. Conversely, high levels of conflict in

the parent–child relationship contribute to increased behavioral problems, both externalizing and internalizing in nature [26][31]. In short, children with intellectual disabilities and borderline intellectual functioning often experience adverse childhood experiences (ACEs) and high family context risk factors [35].

Families with stronger support networks tend to demonstrate greater resilience in navigating caregiving challenges. In addition, positive parenting practices and a strong sense of parental competence are associated with lower levels of stress. Parents who perceive themselves as capable and supported are more likely to respond adaptively to the demands of raising a child with intellectual disabilities [36]. Family adaptation strategies also emerge as critical mechanisms for managing ongoing stress. The reviewed evidence suggests that families adjust their functioning through flexible reorganization of roles, routines, and responsibilities. Parents often shift their parenting approaches toward greater emotional responsiveness, prioritizing affective support over directive instruction in order to maintain positive parent–child relationships despite increased caregiving demands [35][36]. Such adaptive strategies help families maintain stability and reduce the overall impact of stressors on family functioning.

Taken together, these findings underscore that parenting stress is shaped not only by the child's condition but also by the balance between risk factors—such as behavioral challenges and environmental pressures—and protective factors, including social support and adaptive coping strategies. Strengthening protective mechanisms and supporting family adaptation processes are therefore essential for reducing parenting stress and enhancing overall family well-being. This pattern aligns with the Family Stress Model discussed previously, which emphasizes the interaction between internal family dynamics and external contextual factors in shaping developmental outcomes [31][32][33].

## **4 Conclusion**

Based on the reviewed literature, parental stress among parents of children with intellectual disabilities arises from a complex interaction between internal factors, such as challenging behaviors and cognitive delays of the child, and external factors, including social support, economic conditions, and access to services. This interaction is bidirectional, where parental stress influences parenting patterns and the quality of parent-child interactions, while child behavior also affects parents' stress levels.

Family structural adaptation, including role adjustments, stress management, and utilization of available resources, is key to supporting the emotional and social development of the child. Based on these findings, community-based interventions and coping skills training for parents of children with intellectual disabilities are needed to reduce parental stress and enhance overall family well-being.

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